BEFORE THE

# Federal Communications Commission

WASHINGTON DC 20554

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| In the Matter of | ) | |
| | ) | CC Docket No. 96-45 |
| Federal-State Joint Board on Universal Service | ) | |



## FURTHER COMMENTS OF AIRTOUCH COMMUNICATIONS, INC.

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**FURTHER COMMENTS OF AIRTOUCH COMMUNICATIONS, INC.**

AirTouch Communications, Inc. ("AirTouch")[1] hereby submits the following further comments regarding the *Notice of Proposed Rulemaking* in the above-captioned proceeding[2] in response to the July 3, 1996 Public Notice seeking further comment on specific questions.[3]

## SUMMARY

These further comments present answers to selected questions raised in the *Public Notice*. These comments are organized by section and question in the order they appear in the *Public Notice*.

The central points made in these further comments follow:

- *Definitions Issues (Questions 1-5):* While "affordability" is not a well-defined economic concept, under any reasonable interpretation local exchange rates would remain affordable for the vast majority of Americans

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1 AirTouch is a wireless communications company with interests in cellular, paging, personal communications services, satellite and other operations.

2 *Notice of Proposed Rulemaking and Order Establishing Joint Board*, CC Docket No. 96-45, FCC 96-93 (released March 8, 1996) ("*Notice*").

3 Public Notice, DA 96-1078, CC Docket 96-45 (released July 3, 1996) ("*Public Notice*").

even if they were increased significantly. Any notion of affordability is meaningless without reference to consumer income levels.

- *Schools, Libraries, Health Care Providers (Questions 6-25):* It is important that telecommunications policy makers avoid promoting an inefficiently broad and hasty rush into the use of telecommunications technology in education at a time when technology is rapidly changing and before schools and libraries are prepared to make full use of these services.

- *High Cost Fund (Questions 26-68):* The primary recipients of these funds will continue to be the incumbent local exchange carriers (ILECs). It is important that they not be allowed to use this mechanism as a means of extracting subsidies from other telecommunications carriers beyond what is needed to meet true universal service costs. Hence, it is important that efficiency incentives and other checks on subsidy costs be built into the system. Competitive bidding (where feasible) and proxy models based on publicly verifiable data can provide such incentives and checks.

- *SLC/CCLC (Questions 69-70):* The carrier common line charge (CCLC) recovers non-traffic-sensitive costs through traffic-sensitive charges. As such, all of the CCLC is an inefficient cost recovery mechanism and is a cross-subsidy from interstate, interexchange services to local exchange access services. While this distortion in rates apparently was motivated by the desire to promote subscribership, there is little reason to think it has this effect. These rates should be rebalanced by lowering the CCLC and gradually raising the flat monthly charge paid for access. If the Commission insists on recovering these charges from traffic-sensitive charges on all interstate services, it should assess these charges based on minutes of use.

## COMMENTS ON SELECTED QUESTIONS

### Definitions Issues

1. Is it appropriate to assume that current rates for services included within the definition of universal service are affordable, despite variations among companies and service areas?

In general, current rates for services included within the definition of universal service are affordable, variations among companies and service areas notwithstanding. Indeed, current basic monthly charges could be raised significantly and still remain affordable for the vast majority of households.

In this regard, it should also be noted that there are several issues that should be considered in asking whether a given service is "affordable:"

- First, the notion of affordability necessarily means different things for different people. Any economically meaningful measure of affordability should be defined relative to the level of subscriber income. The fundamental link between affordability and subscriber income implies that it is much more desirable to target end users based on their incomes, not their locations. For the vast majority of Americans, local exchange rates would be considered affordable even if they were increased significantly. Today, for example, over 65 percent of homes passed by cable subscribe to cable and spend approximately $30 per month on average; this is considerably more than the amount spent on local exchange telephone service [4]

- Second, assuming that the underlying goal of universal service policy is to promote telephone subscribership, it is a mistake to look at service prices in isolation. Economic theory and empirical evidence indicate that the consumer's decision whether to connect to the public switched telephone network ("PSTN") depends on the full range of prices charged for telecommunications services (*e.g.*, per-month and per-minute local exchange charges, intraLATA toll, and interLATA toll).[5] Current policy, which inflates toll rates to cross-subsidize local exchange service, is thus largely self-defeating and does not improve the affordability of telephone services in an economically meaningful sense

- Lastly, there are efficiency and fairness costs associated with subsidized rates. An affordability standard should be defined relative to the costs of service provision. Supplier costs are relevant because prices must reflect underlying costs in order to provide the proper market signals to guide efficient consumer decision-making. The desirability of having prices reflect (if not exactly track) underlying costs remains even when there are public policy reasons for subsidizing the prices in question.

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4 *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 95-61, *Second Annual Report*, 11 F.C.C.R. 2060, 2068, 2071 (1995).

5 For a discussion of the estimated effects of price changes on telephone penetration *see* J. Hausman, T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration," *American Economic Review*, 1993.

2. To what extent should non-rate factors, such as subscribership level, telephone expenditures as percentage of income, cost of living, or local calling area size be considered in determining the affordability and reasonable comparability of rates?

As noted in the answer to Question 1, measures of household income should be taken into account in assessing affordability. As also noted in the answer to Question 1, there are efficiency and fairness costs associated with universal subsidies, and such subsidies should not be granted without a sound basis.

It is widely recognized that telephone rates need to be brought into line with costs in order to promote efficient consumption and allow the development of meaningful local exchange competition while preserving universal service.[6] An innovative way for the Joint Board to promote reform would be to allow ILECs to rebalance their rates as long as subscribership does not drop as a result. While several difficult issues are raised by the policy of nationwide averaging for long distance charges—which makes ILEC-by-ILEC rate reform difficult—this avenue of reform is one worth pursuing.

3. When making the "affordability" determination required by Section 254(i) of the Act, what are the advantages and disadvantages of using a specific national benchmark for core services in a proxy model?

The biggest advantage of a proxy model is that, properly constructed and used, it can limit the subsidized carriers' ability to overstate their costs and it can provide incentives for cost reduction. It is vital that the Commission build such incentives into universal service policy. A system under which a carrier is subsidized on a cost-plus or rate-of-return basis is fatally flawed because it provides little incentive for efficient cost

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6 *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, "Comments of AirTouch Communications, Inc." 8-9 (filed April 12, 1996), *citing Preparation for Addressing Universal Service Issues: A Review of Current Support Mechanisms* (Common Carrier Bureau) at 3 (1996).

reduction. It would neither be sound policy, nor consistent with the spirit of the Telecommunications Act of 1996[7] (the "1996 Act"), to support universal service on a traditional cost-of-service basis. Instead, any subsidy payments made directly to carriers should be based either on: (1) the results of competitive bidding to be the universal service provider for the relevant end users;[8] or (2) proxy cost models that create price-cap like incentives.

5. A number of commenters proposed various services to be included on the list of supported services, including access to directory assistance, emergency assistance, and advanced services. Although the delivery of these services may require a local loop, do loop costs accurately represent the actual cost of providing core services? To the extent that loop costs do not fully represent the costs associated with including a service in the definition of core services, identify and quantify other costs to be considered.

There is widespread agreement that the current system of universal service is incompatible with competition and is needlessly costly and inefficient both in terms of how subsidy revenues are collected and how support is allocated.[9] Given these problems, the current system should not be expanded to new, advanced services before it is overhauled. At present, only core telephony services should be subject to universal service support.

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7 Pub. L. No. 104-104, 110 Stat. 56 (1996) *codified at* 47 U.S.C. §§ 151 *et seq.*

8 Competitive bidding is discussed in more detail in the responses to Questions 49 and 50 below. *See infra* text at 24-25.

9 *See supra* Comments of AirTouch Communications, Inc. 8-9, *citing Preparation for Addressing Universal Service Issues: A Review of Current Support Mechanisms* (Common Carrier Bureau) at 3, *see also* Reply Comments of AirTouch Communications, Inc. 1-2 (filed May 7, 1996).

**Schools, Libraries, Health Care Providers**

6. Should the services or functionalities eligible for discounts be specifically limited and identified, or should the discount apply to all available services?

Everyone agrees that America's children deserve the best education possible, including the use of telecommunications services where appropriate. But high-quality education does not come cheap. Hence, it is vital that both the collection and disbursement of subsidy funds for schools and libraries be done efficiently and be done in coordination with overall educational efforts. AirTouch believes that these programs will be most effective if schools and libraries making *bona fide* requests are entitled to purchase designated advanced telecommunications services at long-run incremental cost. In order to make a *bona fide* request, an eligible entity should demonstrate that it has the ability to put the necessary infrastructure in place (including personnel training) to make use of the services.

With regard to schools, libraries and health care providers, the services or functionalities eligible for discounts should be specifically limited and identified. Section 254(b)(6) of the 1996 Act states that a fundamental policy of universal service is that elementary and secondary schools, libraries, and health care providers "should have" access to "advanced telecommunications services." The use of the term "advanced telecommunications services," rather than a broader term such as "universal services" or "telecommunications services," demonstrates an intention that the services eligible for universal services support should be narrow and clearly defined. In addition, Section 254(c)(3) of the 1996 Act contemplates that the Commission will adopt a special defini-

tion of universal service applicable only to hospitals, schools, and libraries.[10] Section 254(h)(1)(B) of the 1996 Act in turn refers to this special definition of universal service in establishing telecommunications carriers' obligations to provide services to schools or libraries.[11] Thus, the language and structure of Section 254 of the 1996 Act demonstrate that the services or functionalities eligible for discounts should be specifically limited and identified.

Indeed, such eligible services should be limited to those necessary to promote specific, innovative educational or health related programs. The legislative history of the 1996 Act states that:

> section 254 is intended to ensure that health care providers for rural areas, elementary and secondary school classrooms, and libraries have affordable *access to modern telecommunications services that will enable them to provide medical and educational services* to all parts of the Nation. . . The provisions of subsection (h) . . . are intended, for example, to provide *the ability to browse library collections, review the collections of museums, or find new information on the treatment of an illness*, to Americans every where via schools and libraries.[12]

Similarly, in discussing the special definition of universal service for schools, libraries and health care providers, the legislative history directs "the Commission and the Joint Board to take into account *the particular needs of hospitals, K-12 schools and libraries*."[13]

In short, it is the intent of Section 254 of the 1996 Act to support the purchase of advanced telecommunications services to enable schools, libraries, and health

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10 *Id.* at § 254(c)(3).

11 *Id.* at § 254(h)(1)(B).

12 H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. 132 (1996) (emphasis supplied).

13 *Id.* (emphasis supplied).

care providers to develop programs that generate significant educational and health care benefits. While the 1996 Act contemplates taxes on the telecommunications sector solely to support subsidized *telecommunications services* (see the answer to Question 7 below), additional elements such as inside wiring, equipment, and teacher training are essential for schools and libraries to make use of advanced telecommunications services. The effectiveness and efficiency of the support program will thus be much greater if schools and libraries seeking support funds are required to demonstrate that they have a workable plan for putting together the whole package of services, equipment and training needed to realize significant educational benefits from the use of advanced telecommunications services. Accordingly, it would be imprudent simply to roll out subsidized telecommunications services to such entities on a mass basis. Rather schools, libraries, and health care providers should receive assistance as they develop the capabilities to make full use of the subsidized services.

Indeed, Section 254 envisions precisely such a staged implementation process. Under Section 254(h)(1)(B), telecommunications carriers are obligated to provide service to schools and libraries only upon receiving a *bona fide* request.[14] This provision should be read in conjunction with Section 254(h)(2) which requires the Commission to enhance the provision of advanced telecommunications services to schools, libraries and health care providers to the extent that it is "economically reasonable" and "technically feasible."[15] Providing advanced telecommunications services to the subsidized entities would be economically justified only if the requesting entity has the

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[14] 47 U.S.C. § 254(h)(1)(B).

[15] *Id.* at § 254(h)(2).

capability to make full use of the subsidized services consistent with the purposes of the 1996 Act. When the subsidized entities have the necessary capabilities in place, a *bona fide* request for advanced telecommunications service can be made.

7. Does Section 254(h) contemplate that inside wiring or other universal service connections to classrooms may be eligible for universal service support of telecommunications services provided to schools and libraries? If so, what is the estimated cost of the inside wiring and other internal connections?

Section 254(h) of the 1996 Act does not support the conclusion that inside wiring or other internal connections to classrooms may be eligible for universal service support. The language of Section 254(h) refers only to telecommunications services and does not reference internal wiring or other elements of physical infrastructure. Further, the stated purpose of this provision is to ensure that "health care providers for rural areas, elementary and secondary school classrooms, and libraries have affordable access to modern telecommunications services."[16] There is no statement suggesting that Congress intended to provide universal services support for inside wiring and other connections.

In addition, Section 254(h) refers to the definition of universal service established pursuant to Section 254(c)(3). That section authorizes the Commission to designate a separate definition of universal service designed to address the particular needs of hospital, schools and libraries.[17] Neither the 1996 Act nor its legislative history, however, suggest that this separate definition should include inside wiring or connections. Indeed, Section 254(c)(3) states only that

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[16] H.R. Conf. Rep. No. 458 at 132

[17] 47 U.S.C. § 254(c)(3).

> In addition to the services included in the definition of universal service under paragraph (1), the Commission may designate *additional services* for such support mechanisms for schools, libraries, and health care providers for purposes of subsection (h).[18]

Finally, Section 254(h)(2) requires the Commission to establish rules to enhance the availability of advanced telecommunications services to schools and libraries.[19] Again, however, there is nothing to suggest that such rules should include providing universal services support for inside wiring or connections. The legislative history states that under this provision:

> the Commission could determine that telecommunications and information services that constitute universal service for classrooms and libraries shall include dedicated data links and the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State, and local governments, and information services which can be carried over the Internet.[20]

This laundry list of possible elements to be included in universal service does not include inside wiring or connections.

There are economic, as well as legal, reasons to exclude inside wiring and connections from universal services support. Unlike the costs associated with common network elements, the costs of inside wiring are entirely incremental costs. In light of the fact that the provision of inside wiring is open to competition, it may already be sold at close to its incremental cost. Hence, there may be little scope to provide reduced prices to schools and libraries without pricing below long-run incremental cost. Consequently,

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[18] *Id.* (emphasis supplied).

[19] *Id.* at § 254(h)(2).

[20] H.R. Conf. Rep. No. 458 at 133.

providing significant discounts for inside wiring is likely to place significant burdens upon other telecommunications consumers.[21] These costs will include both the direct burdens of the taxes used to fund inside wiring subsidies and the indirect efficiency costs due to the distortions in telecommunications markets that inevitably will be triggered by the collection of subsidy funds.[22]

Nevertheless, elements such as inside wiring, equipment, and personnel training are essential for schools and libraries to make use of telecommunications services. It will only make sense, therefore, to promote the purchase of telecommunications services if the subsidized entities can put together the complete packages of services, equipment (including computers and other non-telephone terminal equipment), and training needed to generate significant educational benefits. The importance of the elements outside the scope of telecommunications services points to the need for comprehensive financial support through programs other than those that place tax burdens solely on telecommunications users and providers. Both fairness and efficiency considerations lead to the conclusion that funding should come from general taxes, not those levied specifically on the telecommunications sector.

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21 For a discussion of the relationship between subsidy burdens and long-run incremental cost, *see* the answer to Question 16 below.

22 Any estimate of the cost of networking the classrooms will be a serious underestimate if it fails to include the efficiency losses due to the distortions in telecommunications markets. These efficiencies losses, called *deadweight losses* by economists, may be very significant in a market such as local exchange where competition is just emerging and it will be extremely difficult, if not impossible, to implement competitively neutral policies.

8. To what extent should the provisions of Sections 706 and 708 be considered by the Joint Board and be relied upon to provide advanced services to schools, libraries and health care providers?

There is little doubt that the provisions of Sections 706 and 708 of the 1996 Act should be considered by the Joint Board [23] The Joint Board has a broad mandate to "thoroughly review the existing system of Federal universal service support."[24] In addition, the Joint Board is to develop policies to preserve and enhance universal service based upon a number of guiding principles, including providing access to advanced telecommunications services to schools, libraries and health care providers consistent with Section 254(h).[25]

Sections 706 and 708 are designed to foster the provision of advanced telecommunications services to schools and libraries. Section 706 requires the Commission to:

> undertake periodic investigations to determine whether advanced telecommunications capability, particularly to schools and classrooms, is being deployed in a reasonable and timely fashion.[26]

This determination is to include an assessment "of the availability, at reasonable, cost, of equipment needed to deliver advanced broadband capability."[27] If necessary, the Commission is required to take immediate action to accelerate deployment including price cap regulation, regulatory forbearance, and other methods to provide incentive for infrastruc-

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23 47 U.S.C. §§ 706, 708.

24 H.R. Conf. Rep. No. 458 at 131.

25 47 U.S.C. § 254(b)(6).

26 H.R. Conf. Rep. No. 458 at 210.

27 *Id.*

ture development. Section 708 establishes a non-profit, non-agency, federal corporation, the National Education Technology Funding Corporation ("NETFC"), to provide loans, grants and other forms of assistance for investment in education technology infrastructure.[28] Thus, it is reasonable to conclude that Sections 706 and 708 are within the scope of the Joint Board's mandate to evaluate, preserve and enhance universal service support.

Further, Sections 706 and 708 should be relied upon to some extent for the provision of advanced telecommunications services. Section 706 sensibly recognizes that the provision of such services will be an ongoing process and provides the Commission with regulatory oversight to ensure that the process is "reasonable and timely." This concept is consistent with the approach for providing advanced telecommunications services to schools and libraries outlined in the above response to Question 7. Subsidized telecommunications services should not be rolled out to schools and libraries on a mass basis, but should be coordinated with the ability of such entities to get the necessary inside wiring, equipment, and personnel training in place. Section 706 would appear to provide a process to support such a comprehensive and carefully targeted approach to providing advanced telecommunications services to schools and libraries.

Section 708 also can serve an important role in the deployment of advanced telecommunications services to schools and libraries. As a source of funds, expertise and training, the NETFC may provide a vehicle to insure that schools and libraries have the inside wiring, equipment, and personnel training that will be necessary to utilize advanced telecommunications services to generate significant educational benefits.

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[28] *Id.* at 211

Further, the NETFC will facilitate and subsidize the deployment of inside wiring, etc., thereby mitigating for the fact that these elements should not receive universal services support.

Finally, it is not clear, however, that the Joint Board can solely rely upon Sections 706 and 708 to provide advanced services to health care providers. These sections focus almost exclusively on schools and libraries.

9. How can universal support for schools, libraries, and health care providers be structured to promote competition?

Universal support for schools, libraries, and health care providers is more likely to slow the development of local exchange competition than to promote it. Thus, the objective of policy makers should be to minimize the harm to competition by ensuring that programs are tailored as narrowly as is consistent with attaining the specific objectives of the 1996 Act.

The conclusion that universal service support for schools, libraries, and health care providers is likely to reduce or delay competition follows from several factors. One, any system of support will likely favor the ILECs because today they are in the best position to provide these services and collect the subsidies. To the extent that subsidies are used to support long-lived investments, ILECs will be given entrenched advantages. In order to reduce the ILECs' artificial advantages of incumbency, it is important to allow service-by-service eligibility for universal service support funds.

One of the biggest effects of universal service on competition arises through distortions in the competitive process which result from the inefficient means through which subsidy funds are collected. Indeed, one of the principal areas of dispute in

the proceeding on interconnection policy centers on how to account for universal service costs that the ILECs claim to bear.[29] Until reform of the process by which funds for universal service support are raised, any expansion of universal service will exacerbate the problems with the current system. Consequently the Joint Board should move cautiously before creating a huge new program requiring support.

A gradual roll-out of the program makes sense for a variety of other reasons, as well. First, because of the need for physical and personnel infrastructure to support the use of advanced telecommunications services, schools and libraries need time to get all of the pieces together. It would be imprudent simply to roll-out subsidized telecommunications services to these entities on a mass basis. Rather schools and libraries should receive assistance as they develop the capabilities to make full use of the subsidized services.

Second, this is a period of incredibly rapid change in the computer and communications markets. People in the computer industry now speak of "Internet time" to capture the notion of the increasing rate of change in what was already a tremendously dynamic industry. It would be ironic, as well as tremendously wasteful, to promote the broad-based adoption of technologies that may soon be replaced by cheaper and more effective ones.

A third point, closely related to the first two, is that experimentation is needed. It is more prudent to let a subset of schools engage in pioneering efforts to learn what works and what does not before adopting a given approach on a wholesale basis.

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[29] *See Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95-185, "Reply Comments of AirTouch Communications, Inc." 6-8 (filed March 25, 1996).

16. What should be the base service prices to which discounts for schools and libraries are applied: (a) total service long-run incremental cost; (b) short-run incremental costs; (c) best commercially-available rate; (d) tariffed rate; (e) rate established through a competitively-bid contract in which schools and libraries participate; (f) lowest of some group of the above; or (g) some other benchmark? How could the best commercially-available rate be ascertained, in light of the fact that many such rates may be established pursuant to confidential contractual arrangements?

In order to meet the objectives of the 1996 Act, the rates paid by schools and libraries should be "less than the amounts charged for similar services to other parties."[30] AirTouch believes that the most appropriate implementation of this standard is to offer discounts off the best commercially available rates by enabling eligible entities to purchase designated advanced telecommunications services at long-run incremental cost.

This approach has several significant advantages:

- Given this pricing standard, there would be no need to provide support funds to the service provider. The schools and libraries would be covering the incremental costs of serving them. And because the designated services would be relatively new, advanced services, the service provider generally would not be suffering a loss in existing contribution toward common costs and overhead. This approach would thus greatly simplify administration of the program and, hence, maximize the percentage of resources devoted to improving education rather than supporting program administration.

- Because the rate paid by schools and libraries charged schools and libraries would be set equal to long-run incremental costs, there would be no need to determine the actual level of the best commercially available rate, which presumably would exceed long-run incremental costs. Again, administration costs would be minimized

- Carriers in competitive markets would be willing to go as low as long-run incremental costs to win the patronage of schools and libraries seeking advanced telecommunications services. Hence, in such markets, this policy can rely on market forces alone to ensure that affordable rates are attained. There would be no need to impose new time-consuming and burdensome regulatory accounting systems on competitive carriers.

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30 47 U.S.C. § 254(h)(1)(B).

- Because the rates paid by schools and libraries would cover long-run incremental costs — the costs triggered by provision of service — other telephone subscribers would not be made worse off by the provision of discounted service to schools and libraries. Moreover, distortions in usage levels would be minimized in comparison with approaches that entailed pricing designated services below incremental cost.

- When prices are set at incremental costs, these prices send the right economic signals to guide educators' decisions of how best to expend resources on the education of America's children. Long-run incremental costs represent the true to cost to society of using advanced telecommunications services for these purposes. Faced with price signals reflecting these costs, educators will be able to decide if resources are better spent on teacher training or new connections to the Internet. The "shortage" of funds for education makes it all the more important to spend resources wisely

Even if the Commission does not adopt AirTouch's proposal for the pricing of designated services to eligible institutions, long-run incremental cost remains the economically most appropriate standard for the determination of the support that service providers may claim. These costs represent the costs actually triggered by provision of the service and—because they are long-run costs—they allow for the recovery of capital costs. In contrast, a short-run incremental cost standard would not allow for the recovery of capital costs, and thus would undermine investment incentives and/or unfairly penalize those firms providing subsidized services. In the other direction, service providers would be overcompensated if they received universal service support funds to cover overheads or common costs. Such payments would be overcompensation because, by definition, overheads and common costs would be incurred even if the carrier did not provide the subsidized services. Moreover, as discussed above, carriers in competitive markets would be willing to go as low as long run incremental cost to obtain traffic. Thus, long run incremental cost represents a reasonable proxy for the best-available commercial rate.

17. How should discounts be applied, if at all, for schools and libraries and rural health care providers that are currently receiving special rates?

Schools and libraries and rural health care providers that are currently receiving special rates should pay the lower of (1) the existing special rates, and (2) long-run incremental costs (for the reasons discussed in the answer to Question 16). This policy will ensure consistency and avoid unplanned double discounts. In cases where carriers are currently providing service at special rates, it also is important to ensure that they do not double collect support funds once through any new programs established by the Commission pursuant to 1996 Act and once through existing mechanisms, which may well be implicit (*e.g.*, a social contract with a state commission).

19. Should an additional discount be given to schools and libraries located in rural, insular, high-cost and economically disadvantaged areas? What percentage of telecommunications services (e.g., Internet services) used by schools and libraries in such areas are or require toll calls?

For the reasons stated in the answer to Question 16, qualifying schools and libraries should be able to purchase designated services at long-run incremental cost. If the Commission decides to impose even greater discounts off of current rates, in no circumstances should such additional discounts be offered to relatively wealthy schools and libraries.[31] The 1996 Act clearly states that any discount should be large enough to ensure that service rates are "affordable."[32] And, as discussed in the answer to Question 1

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[31] Wealth should be defined relative to the income of the population served by the institution, as opposed to the school or library's actual budget. The former measure will reflect the community's ability to pay, while the latter also reflects political choices regarding how to spend community income.

[32] 47 U.S.C. § 254(h)(1)(B).

for the case of residential subscribers, the notion of affordability is necessarily linked to the income of the end user.

Therefore, any discounts beyond pricing at long-run incremental cost should be limited to schools and libraries located in rural, insular, high-cost and economically disadvantaged areas. Targeting any additional support would ensure that those who are most in need of funds are the ones who receive them. In contrast, large, indiscriminate discounts to all such institutions, even those in wealthy communities, would needlessly burden other subscribers and distort telecommunications consumption levels.

The percentage of telecommunications services used by schools and libraries in such areas will constantly evolve over time. For instance, the need to make a toll call to consume Internet services is primarily a function of the business models of Internet service providers.

22. Should separate funding mechanisms be established for schools and libraries and for rural health care providers?

Universal service funding mechanisms should be coordinated with one another to minimize the distortions imposed on telecommunications markets and ensure that overall burdens are fairly and consistently levied on various market participants. These considerations suggest the use of an integrated approach. Indeed, the economic theory of public finance clearly points to the desirability of integrating universal service funding into the overall tax system.

At the same time that coordination is desirable, it is also important to identify the funds going to each type of subsidized entity. In all cases, funding and support mechanisms should be transparent, neutral, and accountable.

## High Cost Fund

### General Questions

28. What are the potential advantages and disadvantages of basing the payments to competitive carriers on the book costs of the incumbent local exchange carrier operating in the same service area?

There is widespread agreement that economic costs are forward-looking costs, and that forward-looking costs are the proper basis for efficient pricing.[33] Moreover, competitive firms rely on forward-looking costs to make investment and pricing decisions. Because they are not economic costs, the recovery of embedded costs leads to inefficiently high prices that distort consumption and investment decisions by both ILECs and potential entrants. For instance, because they are likely to overstate an ILEC's economic costs of providing service, the use of book costs would create incentives for inefficient bypass of the ILEC's network. In addition, by basing payments on an inflated cost base, this approach would increase the burden borne by the subscribers to the services taxed to fund the subsidies.

As a practical matter, it is clear that the bulk of universal service support funds will continue to go to ILECs. And in any situation in which regulation sets a price ceiling based on costs, ILECs have economic incentives to overstate their costs. The use of embedded costs, with their necessarily arbitrary allocations, are potentially subject to manipulation. Moreover, while some have claimed that embedded costs can more reliably be estimated than forward-looking costs, this misses the point. For the reasons summarized in the previous paragraph, forward-looking costs are the only proper basis for

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33 *See* "The Commission Adopts Rules to Implement Local Competition Provisions of Telecommunications Act of 1996." Report No. DC 96-75, at 2 (rel. August 1, 1996).

efficient pricing whether or not they are easily projected. And unregulated firms frequently make workable projections of forward-looking costs.

29. Should price cap companies be eligible for high-cost support, and if not, how would the exclusion of price cap carriers be consistent with the provisions of section 214(e) of the Communications Act? In the alternative, should high-cost support be structured differently for price cap carriers than for other carriers?

The rate caps to which carriers are subject reflect the full mix of costs that they bear to provide service—the costs of high-cost areas, as well as those of low-cost areas. It is essential that any future version of the high-cost fund take into account the fact that carriers are implicitly allowed to charge above-cost rates in low-cost areas in effect to cross-subsidize low-cost areas. One approach would be to require any price cap carrier to base claims of high costs on the same level of aggregation as the price cap ceilings themselves. Under this approach, for example, a Regional Bell Operating Company seeking compensation for high-cost areas under a federal program would have to show high costs on average for its entire multistate service area.

In any event, Section 254(k) of the 1996 Act prohibits carriers from using services that are not competitive to subsidize competitive services.[34] To that end, those telecommunications carriers providing non-competitive services should be required to put into place accounting methods and other non-structural safeguards to prevent such cross-subsidization.

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[34] 47 U.S.C. § 254(k).

30. If price cap companies are not eligible for support or receive high-cost support on a different basis than other carriers, what should be the definition of a "price cap" company? Would companies participating in a state, but not a federal, price cap plan be deemed price cap companies? Should there be a distinction between carriers operating under price caps and carriers that have agreed, for a specified, period of time, to limit increases in some or all rates as part of a "social contract" regulatory approach?

A carrier should be treated as a "price cap" company if it is under Commission price caps, state price caps, a social contract, or in any other situation in which rate-of-return review has been suspended in exchange for specified price guarantees. This conclusion follows from the fact that such regulatory schemes implicitly allow the firm to cross-subsidize high-cost services areas with revenues from low-cost areas.

31. If a bifurcated plan that would allow the use of book costs (instead of proxy costs) were used for rural companies, how should rural companies be defined?

Special treatment should be limited to those areas that truly need it. Moreover, the Commission should ensure that companies do not engage in corporate restructuring (*e.g.*, by spinning-off rural service areas as separate companies) simply to take advantage of these programs.

**Proxy Models**

42. Will support calculated using a proxy model provide sufficient incentive to support infrastructure development and maintain quality service?

There is nothing inherent in the use of a proxy model that would undermine incentives to invest in infrastruture. Setting a support level without regard to the quality of service being supported could, in theory, create mis-incentives because the carrier would suffer no direct financial penalties from degrading service quality. This problem

can be dealt with by setting service quality standards that must be met to qualify for support funds.

The alternative of cost-plus regulation is an inefficient and ineffective attempt to promote the maintenance of quality service. One might argue that cost-plus regulation would create quality incentives because a carrier would be able to collect additional support funds to cover the additional costs associated with the provision of high quality service. Such a policy would be far too untargeted, however. While high quality service would be supported, so too would inefficiency and various forms of cost padding.

45. Is it appropriate for a proxy model adopted by the Commission in this proceeding to be subject to proprietary restrictions, or must such a model be a public document?

Any model or data on which the Commission bases support payments should be publicly accountable and verifiable. Universal service support funds will largely go to the ILECs, and to date the support funds have largely come from other carriers. Hence, ILECs have strong economic incentives to overstate their support needs. If the ILECs want to receive large universal service subsidies, then they should be compelled to produce verifiable data showing that they have incurred the underlying costs. Otherwise the effect of universal service policy may be to serve as a means for ILEC shareholders to tax other telecommunications carriers and their customers.

46. Should a proxy model be adopted if it is based on proprietary data that may not be available for public review?

A proxy model based on proprietary data is better than cost-plus regulation (which presumably also would be based on proprietary data). A proxy model—even one